



# GUIDE FOR IMPLEMENTING AN OFFICE WASTE PAPER RECOVERY PROJECT

January, 1986

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Ministry  
of the  
Environment

The Honourable  
Jim Bradley  
Minister  
Rod McLeod  
Deputy Minister

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GUIDE FOR IMPLEMENTING  
AN OFFICE WASTE PAPER  
RECOVERY PROJECT

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WASTE MANAGEMENT BRANCH

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## INTRODUCTION

Recycling of waste office paper is not new. There exists a long established industry which deals specifically with the recovery, collection and recycling of waste paper from the commercial-industrial sector. This includes offices which generate large quantities of computer printouts and computer cards and other companies which manufacture office paper products.

Every office desk generates a considerable amount of waste in the form of fine grades of paper. Since 1978 the Ministry of Environment, Waste Management Branch, has co-ordinated a fine paper recovery project throughout a number of government offices in the Toronto area.

This guide, which is based on experience gained in the Provincial Government project, describes a procedure for recovering this material which is recyclable but all too often overlooked.

## THE VALUE OF RECOVERY

In most offices valuable paper is lost -- literally from the desktop to the waste basket. Efforts to recover this valuable paper are called desktop paper recovery projects which benefit both the environment and the agencies that undertake them.

Recycling paper reduces the need for wood pulp (1 ton of recycled paper equals 17 trees), requires less energy and reduces air and water pollution. Financial benefits may result from both the sale of the recycled paper as well as the reduced disposal costs.

In Ontario, the potential for paper recovery from office buildings is considerable. Of the approximately 6,000,000 tons of urban solid waste generated annually in the province, more than 300,000 tons comes from office buildings. Of this amount, approximately 150,000 tons is valuable paper that could be separated and recycled.

An average office employee generates 160 pounds a year of potentially recoverable paper. For an office building with 1,000 employees this can mean 80 tons of valuable paper which is being lost.

The minimum number of employees in a building necessary for an office waste paper recovery project depends upon the services offered by local contractors but generally 150 employees are required to consider large scale implementation seriously. A co-operative effort of several small offices or buildings or the participation in a larger recovery project in the immediate area may permit smaller offices to realize the benefits of a large scale office paper recovery program.

In summary, the initial investment is small, easily recovered through sale of recycled paper and a continuing program is a steady source of revenue.

## AN EFFECTIVE SYSTEM

The mechanics of desktop paper recovery are quite simple and can be managed with minimal disruption of office routines. Consider the project in use by the Provincial Government:

Each employee places his waste paper into a holder located on or near his desk. When the holder is full, he empties the paper into a floor bin which contains a burlap bag. When the floor bin is full, cleaning staff remove the full bag and replace it with an empty one. Full bags are transferred to storage areas where they are collected by a contractor daily or periodically depending on the space available.

In addition to the desktop sources of waste papers there are large quantities (especially computer printout and data cards) generated daily in many offices. Because of the quantity these are better handled in bulk rather than in the burlap bag system. This may involve larger containers generally supplied by the contractor.

Special arrangements are sometimes required to deal with confidential papers. Some offices shred paper to achieve this; others use a contractor for this purpose.

## A PLAN OF ACTION

The development of a successful paper recovery project demands careful organization and planning. The following steps are suggested:

1. Survey the building
2. Contact building management
3. Appoint a co-ordinator
4. Estimate costs and revenues
5. Solicit a contractor
6. Obtain equipment
7. Implement the project
8. Monitor and reinforce the project.

### 1. Survey the building

The following items should be established:

- the number of employees
- number of floors and offices
- locations for temporary storage of recovered paper
- access to loading area.

Based on the preceding, estimate:

- hardware requirements
- quantities of paper.

**2. Contact building management**

Co-operation of the building management is essential to a successful project. Cleaning staff will have the ultimate responsibility for recovering the collected paper and must be fully informed of the project.

**3. Appoint a co-ordinator**

As in all projects, one person is needed to oversee and implement the necessary steps to initiate the project and for liaison with employees on a continuing basis.

**4. Estimate costs and revenues**

Using the information derived from the survey of buildings and estimated current sales price, the cost benefit can be determined.

**5. Solicit a contractor**

Locating a contractor or purchaser for the recovered paper is a step to be taken after surveying the building. Paper grade selection must be in line with local market demands and conditions. A purchaser will

want to know what grades of paper will be available, their volumes and planned frequency of collection. It is important to check the prices being offered by different purchasers before making a final commitment.

Office waste paper is usually sold to waste paper contractors who sort it, then bale it before re-selling to another larger dealer, a broker or directly to a paper mill. Names of purchasers can usually be found in the Yellow Pages under "Waste Paper" or "Paper Mills". (See Appendix A for a list of waste paper contractors active in Ontario.)

The following questions are usually raised by purchasers of waste paper:

1. If materials are to be collected, will the trucks have to wait for access to the loading dock area?
2. Is the point at which paper will be stored easily accessible or will the driver have to find a way to transport the paper from within the building?
3. Will the materials be in containers other than bags? Are any of these containers returnable? Will the containers be labelled?
4. Are there any other problems that will complicate handling?

5. How much and what type of paper will be separated?

There are literally dozens of different grades of paper being sold for recycling purposes in Canada. A complete list of paper grades and standards can be found in "Paper Stock Standards and Practices -- Circular PS-80" issued by the National Association of Recycling Industries Inc., 330 Madison Avenue, New York, N.Y., 10017. The following are the ones most commonly recovered from office buildings:

1. White ledgers - a general grade of paper consisting of printing and writing paper. The category includes printed or unprinted letterhead, dry copier paper, business forms, typing paper, index cards, and envelopes (without plastic windows).
2. Manifold ledgers - business forms, etc.
3. Coloured ledgers - a grade similar to white ledger but consisting of coloured printing and writing paper. White ledger is permitted in this grade if it is not separately collected.
4. Coloured tab cards - stiff computer punch cards either coloured only or a combination of white, coloured and manila.

5. Computer printout - ledger sheets on which computers print information. Carbon paper must be removed when separating for recycling purposes.
6. Manila tab cards - white or manila coloured computer punch cards only.

The following two paper grades are not usually generated in sufficient quantities to be included in office waste paper recovery projects, and they are only recyclable if separated from higher paper grades.

1. News - newspapers and other papers made of newsprint containing less than 5% of other papers.
2. Brown Kraft - brown bags and wrapping paper and common brown mailing envelopes of various sizes.

Contaminants (known as outthrows and prohibitive materials) mixed in with recyclable papers reduce their value. For office recovery projects the following are generally considered contaminants:

newspapers and magazines  
carbon paper  
gummed labels, adhesives  
slick waxed and plasticized papers  
cardboard  
ditto or mimeo stencils

photographic and blueprint paper  
envelopes with windows  
thermofax copy paper  
chemically treated papers

#### 6. Obtain equipment

The equipment required for a given paper recovery project will depend upon size of building and number of employees. In some projects, dual waste baskets are used, rather than the preferred (and more effective) desktop paper holders.

Companies already supplying office equipment to a building may be the most economical source for equipment.

##### Desktop paper holders

Plastic desktop paper holders are available through regular office suppliers. One is needed per desk but several spares should be purchased per office to replace any damaged or misplaced.

The cardboard desktop paper holders in use by the Provincial Government are available from the Ministry of Environment, Waste Management Branch. Holders of this

type may be purchased from manufacturers of corrugated cardboard products (see Appendix B).

#### **Central floor bins**

Metal floor bins are preferred because of fire regulations. Names of suppliers can be found under "Janitorial Supplies" in the Yellow Pages. Virtually any metal waste container is suitable, provided it allows the collection bag to be inserted inside it.

The container should be clearly marked to indicate its use for recycling. Make sure a decal can be affixed.

The number of floor bins needed will vary but one container per 15 employees is usually sufficient. An additional number is needed for specialized areas (print shop, photocopying area, records department, computer room).

#### **Collection bags**

Reusable burlap bags are highly recommended for several reasons. They are more suitable than regular garbage bags for handling the weight of paper and much less expensive in the long run, as they can be reused. In

situations where separated paper and general refuse are being delivered to the same loading area, burlap bags are less likely to be mistaken for garbage bags. Names of suppliers can be found under "Burlap" in the Yellow Pages (see Appendix B).

- b If burlap bags full of waste paper are to be taken away by the contractor then additional bags should be ordered. Your contractor will be able to advise you on specific needs.

## 7. Implementing the project

The success of an office paper recovery project will depend upon the awareness and co-operation of the employees. Prior to implementation, sufficient time and effort should be devoted to an employee information program. Management support is also a particularly important factor and can be demonstrated by means of a suitable memo sent to all employees from a senior administrator as part of the information program. This program should stress how the project works, with emphasis on the simplicity of its design, the minimum effort required and the benefits.

A schedule of employee briefing sessions may be staged to describe the project, to demonstrate acceptable and unacceptable papers for reclamation, and to give

employees an opportunity to ask questions and make suggestions. Have actual samples of acceptable and unacceptable materials on hand. Distribute individual desktop holders, diagrams showing the location of floor bins, and the names and phone numbers of contact people.

#### **Publicity campaign**

Posters, slogans, news articles in company publications and bulletin board reports are all useful aids for encouraging participation. They serve as daily reminders once the idea of the project has been fully explained. They should be distributed shortly after announcement of the project to remind employees of the scheduled briefing sessions and to maintain their awareness. Other aids such as a paper recycling exhibit or a display in a central location, articles carried by other publications, or announcements in the local media are also useful.

A narrated slide presentation is helpful for explaining the advantages of a paper recovery project. Such a presentation may be loaned from the Communications Branch of the Ministry of the Environment at 135 St. Clair Ave. W., Toronto, Ontario, M4V 1P5 (Telephone 416-965-7117).

#### 8. Monitor and reinforce the project

The co-ordinator is required to keep track of employee participation, and to watch for problems in day-to-day operation or contaminants in the materials being gathered. It is also important to systematically monitor recovery rates, operating costs and revenue from the sale of paper.

Maintaining high participation rates is another essential on-going responsibility of the co-ordinator. As well as encouraging staff to support the program the co-ordinator should ensure that new employees are aware of its existence. The best means of doing this is through memos, newsletters and bulletin board notices providing feedback on performance and solutions to any problems.

#### ACKNOWLEDGEMENT

The Ministry thanks the many Provincial Government employees who are demonstrating that office paper recovery is successful. The approach outlined in this guide is based on the experience gained not only in the Provincial Government office paper recovery project, but also in similar projects started in Municipal jurisdictions and private sector companies.

**For further assistance**

The Ministry of Environment has promotional materials and desktop paper holders which will be made available to project co-ordinators or contractors responsible for project implementation.

For more information contact:

Waste Management Branch  
Ministry of the Environment  
40 St. Clair Ave. W. - 5th Floor  
Toronto, Ontario  
M4V 1P5

Telephone: (416) 965-9671

APPENDIX A

PAPER CONTRACTORS\*

1) J.C. Waste Management Incorporated  
613-615 Main Street East  
Milton, Ontario  
L5J 4A2

(416) 1-858-8008

Attention: Mr. John Campbell

2) Buscombe and Dodds Paper Stock Limited  
123 Eastside Drive  
Toronto, Ontario  
M8Z 5S5

(416) 231-7772

Attention: Mr. Peter McMahon, Manager

3) Mill Paper Fibres Limited  
20 Trinity Street  
Toronto, Ontario  
M5A 3C5

(416) 364-6255

Attention: Mr. P. Mateer, President

4) Domtar Packaging, Recycling Division  
66 Shorncliffe Road  
Toronto, Ontario  
M8Z 5K1

(416) 232-8808

Attention: Mr. H. Lambacher

5) Papier Cascades Incorporated  
700 Industrial Avenue  
c/o P.O. Box 9326  
Ottawa, Ontario  
K1G 0Y9

(613) 523-6761

Attention: Mr. Rene Dupuis, Manager

PAPER CONTRACTORS (cont'd)

6) Hannah Paper Fibers Limited  
2750 John Street  
Markham, Ontario  
L3R 2W4  
  
(416) 495-9844  
  
Attention: Mr. John LaBrie

7) Dominion Recycling Company Limited  
1860 Shawson Boulevard  
Malton, Ontario  
  
(416) 676-1432  
  
Attention: Mr. J. Graff, President

8) Halton's Recycled Resources Limited  
P.O. Box 1174  
Burlington, Ontario  
  
(416) 335-2193  
  
Attention: Mr. George W. Discepolo

9) Youth Ventures  
55 Poulson Street  
Toronto, Ontario  
M5A 1A4  
  
(416) 469-5907  
  
Attention: Ms. D. Long

10) Niagara Recycling  
486 Webber Road  
R.R. #5  
Welland, Ontario  
L3B 5N8  
  
(416) 892-8350

11) Durham Recycling Centre  
717 Wilson Road South  
Unit 4  
Oshawa, Ontario  
L1H 6E9  
  
(416) 579-5264

PAPER CONTRACTORS (cont'd)

12) Community Conservation Centre in East York  
853 O'Connor Drive  
Toronto, Ontario  
M4B 2S7  
  
(416) 757-3277

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\* Consult Yellow Pages or trade directories for more complete list. This list is for information only.

APPENDIX B

EQUIPMENT SUPPLIERS\*

DESKTOP HOLDERS (CARDBOARD)

- 1) Sonoco Ltd.  
P.O. Box 1208  
Brantford, Ontario  
  
(519) 752-6591  
  
(Supplies only tubular blank type to appropriate diameter and length.)
  
- 2) Domtar Inc.  
Packaging Group  
388 Carlaw Avenue  
Toronto, Ontario  
M4M 2T4  
  
(416) 463-5901

FLOOR CONTAINERS

- 1) Wyant & Co.  
2040 Ellesmere Road  
Scarborough, Ontario  
  
(416) 438-6140
  
- 2) Condor Manufacturing Ltd.  
1810 Midland Avenue  
Scarborough, Ontario  
M1P 3C2
  
- 3) Gordon A. MacEachern  
1199 Fewster Drive  
Mississauga, Ontario  
L4W 2A9
  
- 4) W.R. Key Ltd.  
4770 Sheppard Avenue East  
Agincourt, Ontario  
M1S 3V6
  
- 5) Sanitary Products  
78 Rolark Drive  
Scarborough, Ontario  
M1R 4G1

EQUIPMENT SUPPLIER (cont'd)

BURLAP BAGS

- 1) Country Legends  
641 Main Street  
Milton, Ontario  
L9T 2J2  
  
(416) 878-6520
  
- 2) Burstein Bag Co.  
200 Summerlea Road  
Bramalea, Ontario  
L6T 4E6  
  
(416) 792-9898
  
- 3) Burlap Bag Products Ltd.  
66 Bartor Road  
Weston, Ontario  
M9M 2G5  
  
(416) 745-2711
  
- 4) Toronto Bag & Burlap Co.  
1120 Bellamy Road North  
Scarborough, Ontario  
M1H 1H3  
  
(416) 439-2435
  
- 5) Western Bag and Burlap Co.  
66 Eddystone Avenue  
Downsview, Ontario  
M3N 1H4  
  
(416) 743-5630

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\* Consult Yellow Pages or trade directories for more complete list.

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